

REMARKS

Reconsideration and allowance are respectfully requested. Claims 1-17 and 23-43 are currently pending and stand rejected by the Examiner. Applicant has amended claims 1, 23, 29, 32 and 43. No new matter has been added.

Applicant has made a change in the specification to correct minor informalities without substantively affecting the disclosure or the claim scope. More particularly, the specification has been amended to correct a typographical error, changing "STTWorldnet" to "ATT Worldnet". No new matter has been entered. Entry is therefore respectfully requested.

§ 103 rejection

The Examiner rejected claims 1-17 and 23-43 under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 5,592,530 to Brockman et al. ("Brockman") in view of U.S. Patent No. 5,905,985 to Malloy et al. ("Malloy"). Applicant respectfully traverses this rejection.

The Office Action admitted that "the system [in Brockman] correlate the messages pertaining to a particular call or transaction to a single data record" (p. 2). This clearly fails to teach the claimed invention, which determines traffic load based on multiple transactions to multiple called numbers. Brockman focuses solely on capturing messages associated with a particular (single) call or transaction to a single data record and does not even address analyzing multiple transactions to multiple called numbers to generate a traffic load report.

In fact, Brockman does not even address traffic loads at all; its sole focus is linking primary and secondary call records for a single, individual transaction. (see, e.g., Abstract; col. 2, line 47 to

col. 3, line 16; col. 16, line 62 to col. 17, line 14). In other words, Brockman focuses on a micro-level analysis of individual transactions to a single called number or individual transactions associated with a single calling card number, while the claimed invention addresses macro-level traffic analysis.

The fact that Brockman describes a system for gathering fragmented data on a particular call, rather than monitoring and analyzing network traffic patterns like Applicant's system, is further emphasized starting at col. 8, line 19. Here, Brockman sets forth the process of how his system tracks and exchanges data during a specific transaction between a subscriber X placing a toll-free call to subscriber Y. Starting at the end of column 10 and continuing on in columns 11-12, Brockman goes into detail on how his system passes data pertaining to a particular call between a first and second monitor residing on separate signal transfer points STPs (due to data for a particular call taking more than one route of travel).

The above highlights from Brockman illustrate that Brockman depicts a system for gathering data pertaining to a single or particular call from multiple network locations. Unlike Applicant's invention, Brockman does not disclose or even suggest a system that creates relational files relating to multiple transactions or calls to multiple called numbers and then analyzing those files to generate a network traffic load report.

Column 2, lines 7-57 of Brockman, which was referenced by the Office Action at p. 2, merely recites the background and topology of SS7 networks and the need to "correlate the fragmented SS7 messages pertaining to a particular call or transaction to a single data record." Column 16, lines 30-41 of Brockman are then referenced as depicting a means of data generation (call detail

records) and the transmission of the data to external systems for analysis. However, read in relation to the rest of Brockman, it is understood that the call detail record data pertains only to one specific transaction or call and allows analysis only of that call, such as in calling card fraud detection. Nowhere does Brockman teach that data regarding multiple calls can be analyzed to generate a network traffic load report.

The Office Action also asserted that "it would have been obvious. . .to utilize the teachings of Malloy into the teachings of Brockman in order to provide a multi-user client/server system which offers consistently rapid response to database access" (p. 3). However, there is no motivation to combine Brockman with Malloy because Malloy focuses on an on-line analytical processing (OLAP) system that conducts multi-dimensional analysis. "Rapid response to database access" is not even a concern in Brockman, contrary to the Office Action's assertion; as explained above, Brockman is only concerned with matching records for a particular call transaction.

For example, Brockman teaches discarding ISUP data if no errors are detected (col. 16, lines 1-4), which teaches away from creating relational files relating to multiple transactions. Brockman also teaches tracing one particular ISUP call (col. 16, lines 8-10) and generating a call detail records for an individual call (col. 16, lines 30-41). All of the applications taught by Brockman avoid analyzing multiple transactions for multiple called numbers like the claimed invention.

Because the Brockman system focuses on individual transactions to a single called number or associated with a single calling card and does not conduct traffic analysis, there is no need for the Brockman system to use an OLAP system for multi-dimensional analysis like the claimed invention. Even if Malloy could be combined with

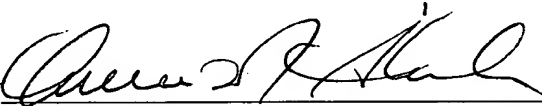
Brockman, the combination still would not suggest the claimed invention because Malloy does not discuss any form of monitoring or analysis of network traffic, let alone teach generating a traffic report. As explained above, Brockman discloses a system for gathering data distributed across a network for a specific call or transaction. It does not suggest the creation of relational files dealing with multiple transactions/calls to multiple called numbers producing and network traffic load reports based on those files. Incorporating a relational database management system based on the teachings of Malloy would not provide Brockman with the capability of monitoring and analyzing network traffic patterns such as the applicant's system. For these reasons, the rejection is improper and should be withdrawn.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance, and a Notice to that effect is earnestly solicited.

Any fees associated with the filing of this paper should be identified in any accompanying transmittal. However, if any additional fees are required, they may be charged to Deposit Account 18-0013 in the name of Rader, Fishman & Grauer PLLC.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that the enclosed Amendment is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231 on this 29th day of MARCH, 2002.

Christy Taylor

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MARKED UP VERSION OF SPECIFICATION

Page 36, first full paragraph

In the foregoing discussion it was assumed that the ISP was pre-identified. Whiel the major point of presence for the larger ISPs (SprintNet, ~~STTWorldnet~~ ATT Worldnet, AOL) may have been known, there has been very limited data available to effectively engineer and administer for the traffic load to lesser known ISPs. Further, there is very little understanding of how CLECs and ISPs themselves are redirecting huge volumes of traffic bound for the Internet across PSTN tandem and IOF networks. It is a feature of this invention that a method of locating and identifying such ISPs is provided.

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MARKED UP VERSION OF CLAIMS

1. (Twice amended) In a switched telecommunications network having end office switching systems controlled by a common channel signaling system connected to the end office switching systems and to paired signal transfer points, the method comprising:

monitoring the signaling between the end office switching systems and the signal transfer points and selecting the signaling relating to transactions and creating a plurality of flat files;

collating the flat files by transaction;

processing the collated flat files to create relational files relating to multiple transactions for multiple called numbers;

performing an on line analysis program to obtain a multidimensional database from the multiple transactions to multiple called numbers of said relational files, said on line analysis program supporting interactive analysis for one or more users; and

generating an on line network traffic load report from the multidimensional database based at least in part on said interactive analysis.

23. (Twice amended) In a switched telecommunications network having end office switching systems controlled by an SS7 common channel signaling system using packet switching via A, B, C, and D links connected to paired signal transfer points connected to one another by D links

and connected by A links to the end office switching systems, the method comprising:

monitoring the signaling in said A links and selecting the A link signaling relating to call set up;

collating said selected signaling by call;

processing said collated signaling to create relational files relating to multiple ~~calls~~transactions for multiple called numbers;

performing an on line analysis program to obtain a multidimensional database from the multiple transactions to multiple called numbers of said relational files, said on line analysis program supporting interactive analysis for one or more users; and

generating an on line network traffic load report from the multidimensional database that summarizes ongoing call attempts and completions based at least in part on said interactive analysis.

29. (Twice amended) In a switched telecommunications network having trunked end office and tandem switching systems controlled by an SS7 common channel signaling system using packet switching via A, B, C, and D links connected to paired signal transfer points connected to one another by C links and connected by A links to end office and tandem switching systems, the method comprising:

monitoring the signaling in said A links and selecting the A link signaling relating to call set up between end office switching systems through a tandem switching system;

collating said selected signaling by call based at least in part on A link signaling to and from said tandem switching system;

performing an on line analysis program to obtain a multidimensional database from the multiple transactions of said relational files, said on line analysis program supporting interactive analysis for one or more users; and

generating an on line network traffic load report from the multidimensional database based at least in part on said interactive analysis that summarizes successful and unsuccessful attempts to route calls to multiple called numbers through said tandem switching system.

32. (Twice amended) A switched telecommunications network having a trunked end office and tandem switching systems controlled by an SS7 common channel signaling system using packet switching via A, B, C and D links connected to paired signal transfer points connected to one another by C links and connected by A links to the end office and tandem switching systems, comprising:

monitors interfacing to the signaling in said A links and selecting the A link signaling relating to call set up between end office switching systems through a tandem switching system;

processing means collating said selected signaling by call based at least in part on A link signaling to and from said tandem switching system;

processing means processing said collated signaling to create relational files relating to multiple calls to multiple called numbers;

on line analytical processing means providing a multidimensional database and supporting interactive analysis for one or more users, wherein said relational files are processed to consolidate and summarize successful and unsuccessful attempts to route calls to multiple called numbers through said tandem switching system and provide traffic load reports thereof.

43. (Twice amended) A switched telecommunications network having trunked end office and tandem switching systems controlled by an SS7 common channel signaling system using packet switching via A, B, C, and D links connected to paired signal transfer points connected to one another by C links and connected by A links to the end office and tandem switching systems, said network including:

monitors interfacing to the signaling in said A links and selecting the A link signaling relating to call set up between end office switching systems;

processing means collating said selected signaling by call based at least in part on A link signaling to and from said end office switching systems;

processing means processing said collated signaling to create relational files relating to multiple calls to multiple called numbers;

automatic message accounting equipment recording call details of call set up and tear down;

on line analytical processing means supporting interactive analysis for one or more users and providing a multidimensional database, including information relating

to said call set up and tear down obtained from said relational files; and

a program for processing said multidimensional database to consolidate and summarize successful and unsuccessful attempts to route calls to multiple called numbers through said tandem switching system and to provide traffic load reports thereof based at least in part on said interactive analysis.